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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/371,760	08/10/1999	TOMOYUKI FUNAKI	25484.00750	9629

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EXAMINER	
CHAWAN, VIJAY B	

ART UNIT	PAPER NUMBER
2654	

DATE MAILED: 07/21/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/371,760	FUNAKI, TOMOYUKI	
	Examiner	Art Unit	
	Vijay B. Chawan	2654	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *18 January 2005*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *5,22-27 and 29-33* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☒ Claim(s) *29-33* is/are allowed.

6)☒ Claim(s) *5 and 22-27* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

2. Claims 5, and 22-27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Serra et al., (5,536,902) in view of Suzuki et al., (6,150,598).

As per claim 22, Serra et al., teach a sound signal analyzing device comprising:

an input device that receives sound signals to be analyzed (Fig.1, item 12);

a characteristic extraction section that extracts a volume level of a sound signal as it is received by said input section (Col.8, line 66 – Col.9, line 17);

a setting section that sets various parameters for use in subsequent analysis of said sound signals received by said input section in accordance with the volume level of the sound signal extracted by said characteristic extraction section, including at least a threshold value (Fig.24, Col.26, line 63 – Col.27, line 65).

Serra et al., do not specifically teach a display section that visually displays a current value of the volume level and the threshold value determined by an extracted value of the volume level in accordance with a predetermined criterion. Suzuki et al., do

teach display section that visually displays a current value of the volume level and the threshold value determined by an extracted value of the volume level in accordance with a predetermined criterion (Figs.2, 24 -> display section of figure 24, displays the parameters such as timbre, amplitude/pitch etc., of Fig.2, Col. 9, lines 12-61). Therefore, it would have been obvious to one with ordinary skill in the art at the time of invention, to use the teachings of Suzuki et al., of displaying extracted data (amplitude and tonal data) in the device of Serra et al., because, one of ordinary skill in the art would readily realize that this would provide an interactive high-quality-tone making technique which, in generating a tone (including amplitude, pitch data extracted from input sound signal), achieves realistic reproduction of articulation and facilitates control of the articulation reproduction, to thereby allow users to freely create a tone and edit the thus-created tone on an electronic musical instrument, multimedia facility or the like (Suzuki et al., Col.3, lines 37-46).

As per claim.5, Serra et al., in view of Suzuki et al., teach the sound signal analyzing device as recited in claim 22, wherein said setting section includes an operator operable by a user, and said setting section, in response to operation of the operator by the user, confirms the volume level of the sound signal displayed by said display section and thereby sets the threshold value (Suzuki et al., Col.11, line 43 – Col.12, line 58).

As per claim 23, Serra et al., teach a sound signal analyzing device comprising:

an input section that receives sound signals to be analyzed (Fig.1, item 12);

a characteristic extraction section that extracts a pitch of a sound signal as it is received by said input section (Figs. 2 and 3);

a designating section that, based on the pitch of the sound signal designates at least one of an upper and lower pitch as a pitch limit characteristic (Fig.3, item 38, Fig.10, A1 and A2);

a setting section that sets various parameters for use in subsequent analysis of sound signals received by said input section in accordance with the pitch characteristic, including at least a filter characteristic (Col.18, lines 18-67, Col.14, lines 11-16).

Serra et al., while teaching the pitch limit characteristic with upper and lower pitch limits, wherein a user can vary the pitch limit characteristic such that the setting section sets the various parameters in accordance with the varied pitch limit characteristic, do not specifically teach a display section that visually displays the pitch limit characteristic by displaying an image indicative of at least one of the upper and lower pitch limits, wherein the user can vary the pitch limit by manipulating the image such that the setting section sets the various parameters in accordance with the varied pitch limit characteristic. Suzuki et al., do teach a display section that visually displays the pitch limit characteristic by displaying an image indicative of at least one of the upper and lower pitch limits, wherein the user can vary the pitch limit by manipulating the image such that the setting section sets the various parameters in accordance with the varied pitch limit characteristic (Figs.2, 24 -> display section of figure 24, displays the parameters such as timbre, amplitude/pitch etc., of Fig.2, Col. 9, lines 12-61). Therefore, it would have been obvious to one with ordinary skill in the art at the time of

invention, to use the teachings of Suzuki et al., of displaying extracted data (amplitude and tonal data) in the device of Serra et al., because, one of ordinary skill in the art would readily realize that this would provide an interactive high-quality-tone making technique which, in generating a tone (including amplitude, pitch data extracted from input sound signal), achieves realistic reproduction of articulation and facilitates control of the articulation reproduction, to thereby allow users to freely create a tone and edit the thus-created tone on an electronic musical instrument, multimedia facility or the like (Suzuki et al., Col.3, lines 37-46).

As per claim 24, Serra et al., teach a sound signal analyzing method comprising the steps of:

a receiving sound signals to be analyzed (Fig.1, item 12);

extracting a volume level of the sound signal as it is received by said step of receiving (Col.8, line 66 – Col.9, line 17);

setting various parameters for use in subsequent analysis of sound signals received by said step of receiving in accordance with the volume level of the sound signal extracted by said step of extracting, including at least a threshold value (Fig.24, Col.26, line 63 – Col.27, line 65).

Serra et al., do not specifically teach a display section that visually displays a current value of the volume level and the threshold value determined by an extracted value of the volume level in accordance with a predetermined criterion. Suzuki et al., do teach display section that visually displays a current value of the volume level and the threshold value determined by an extracted value of the volume level in accordance

with a predetermined criterion (Figs.2, 24 -> display section of figure 24, displays the parameters such as timbre, amplitude/pitch etc., of Fig.2, Col. 9, lines 12-61). Therefore, it would have been obvious to one with ordinary skill in the art at the time of invention, to use the teachings of Suzuki et al., of displaying extracted data (amplitude and tonal data) in the method of Serra et al., because, one of ordinary skill in the art would readily realize that this would provide an interactive high-quality-tone making technique which, in generating a tone (including amplitude, pitch data extracted from input sound signal), achieves realistic reproduction of articulation and facilitates control of the articulation reproduction, to thereby allow users to freely create a tone and edit the thus-created tone on an electronic musical instrument, multimedia facility or the like (Suzuki et al., Col.3, lines 37-46).

As per claim 25, Serra et al., teach a sound signal analyzing method comprising the steps of:

a receiving sound signals to be analyzed (Fig.1, item 12);

extracting a volume level of the sound signal as it is received by said step of receiving (Col.8, line 66 – Col.9, line 17);

designating, based on the pitch of the sound signal, at least one of an upper and lower pitch limit as a pitch limit characteristic (Fig.3, item 38, Fig.10, A1 and A2);

setting various parameters for use in subsequent analysis of sound signals received by said step of receiving in accordance with the pitch limit characteristic, including at least a filter characteristic (Col.18, lines 18-67, Col.14, lines 11-16).

Serra et al., while teaching the pitch limit characteristic with upper and lower pitch limits, wherein a user can vary the pitch limit characteristic such that the setting section sets the various parameters in accordance with the varied pitch limit characteristic, do not specifically teach a display section that visually displays the pitch limit characteristic by displaying an image indicative of at least one of the upper and lower pitch limits, wherein the user can vary the pitch limit by manipulating the image such that the setting section sets the various parameters in accordance with the varied pitch limit characteristic. Suzuki et al., do teach a display section that visually displays the pitch limit characteristic by displaying an image indicative of at least one of the upper and lower pitch limits, wherein the user can vary the pitch limit by manipulating the image such that the setting section sets the various parameters in accordance with the varied pitch limit characteristic (Figs.2, 24 -> display section of figure 24, displays the parameters such as timbre, amplitude/pitch etc., of Fig.2, Col. 9, lines 12-61). Therefore, it would have been obvious to one with ordinary skill in the art at the time of invention, to use the teachings of Suzuki et al., of displaying extracted data (amplitude and tonal data) in the method of Serra et al., because, one of ordinary skill in the art would readily realize that this would provide an interactive high-quality-tone making technique which, in generating a tone (including amplitude, pitch data extracted from input sound signal), achieves realistic reproduction of articulation and facilitates control of the articulation reproduction, to thereby allow users to freely create a tone and edit the thus-created tone on an electronic musical instrument, multimedia facility or the like (Suzuki et al., Col.3, lines 37-46).

As per claim 26, Serra et al., teach a machine readable medium containing a group of instructions of a sound signal analyzing program for execution by a computer, said sound signal analyzing program causing the computer to execute the steps of:

As per claim 24, Serra et al., teach a sound signal analyzing method comprising the steps of:

a receiving sound signals to be analyzed (Fig.1, item 12);

extracting a volume level of the sound signal as it is received by said step of receiving (Col.8, line 66 – Col.9, line 17);

setting various parameters for use in subsequent analysis of sound signals received by said step of receiving in accordance with the volume level of the sound signal extracted by said step of extracting, including at least a threshold value (Fig.24, Col.26, line 63 – Col.27, line 65).

Serra et al., do not specifically teach a display section that visually displays a current value of the volume level and the threshold value determined by an extracted value of the volume level in accordance with a predetermined criterion. Suzuki et al., do teach display section that visually displays a current value of the volume level and the threshold value determined by an extracted value of the volume level in accordance with a predetermined criterion (Figs.2, 24 -> display section of figure 24, displays the parameters such as timbre, amplitude/pitch etc., of Fig.2, Col. 9, lines 12-61). Therefore, it would have been obvious to one with ordinary skill in the art at the time of invention, to use the teachings of Suzuki et al., of displaying extracted data (amplitude

and tonal data) in the method of Serra et al., because, one of ordinary skill in the art would readily realize that this would provide an interactive high-quality-tone making technique which, in generating a tone (including amplitude, pitch data extracted from input sound signal), achieves realistic reproduction of articulation and facilitates control of the articulation reproduction, to thereby allow users to freely create a tone and edit the thus-created tone on an electronic musical instrument, multimedia facility or the like (Suzuki et al., Col.3, lines 37-46).

As per claim 27, Serra et al., teach a machine readable medium containing a group of instructions of a sound signal analyzing program for execution by a computer, said sound signal analyzing program causing the computer to execute the steps of:

a receiving sound signals to be analyzed (Fig.1, item 12);

extracting a volume level of the sound signal as it is received by said step of receiving (Col.8, line 66 – Col.9, line 17);

designating, based on the pitch of the sound signal, at least one of an upper and lower pitch limit as a pitch limit characteristic (Fig.3, item 38, Fig.10, A1 and A2);

setting various parameters for use in subsequent analysis of sound signals received by said step of receiving in accordance with the pitch limit characteristic, including at least a filter characteristic (Col.18, lines 18-67, Col.14, lines 11-16).

Serra et al., while teaching the pitch limit characteristic with upper and lower pitch limits, wherein a user can vary the pitch limit characteristic such that the setting section sets the various parameters in accordance with the varied pitch limit characteristic, do not specifically teach a display section that visually displays the pitch limit characteristic

by displaying an image indicative of at least one of the upper and lower pitch limits, wherein the user can vary the pitch limit by manipulating the image such that the setting section sets the various parameters in accordance with the varied pitch limit characteristic. Suzuki et al., do teach a display section that visually displays the pitch limit characteristic by displaying an image indicative of at least one of the upper and lower pitch limits, wherein the user can vary the pitch limit by manipulating the image such that the setting section sets the various parameters in accordance with the varied pitch limit characteristic (Figs.2, 24 -> display section of figure 24, displays the parameters such as timbre, amplitude/pitch etc., of Fig.2, Col. 9, lines 12-61). Therefore, it would have been obvious to one with ordinary skill in the art at the time of invention, to use the teachings of Suzuki et al., of displaying extracted data (amplitude and tonal data) in the method of Serra et al., because, one of ordinary skill in the art would readily realize that this would provide an interactive high-quality-tone making technique which, in generating a tone (including amplitude, pitch data extracted from input sound signal), achieves realistic reproduction of articulation and facilitates control of the articulation reproduction, to thereby allow users to freely create a tone and edit the thus-created tone on an electronic musical instrument, multimedia facility or the like (Suzuki et al., Col.3, lines 37-46).

Allowable Subject Matter

3. Claims 29-33 are allowed.

Conclusion

4. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Gibson (6,898,291) teaches method and apparatus for using visual images to mix sound.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Vijay B. Chawan whose telephone number is (571) 272-7601. The examiner can normally be reached on Monday Through Friday 6:30-3:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richemond Dorvil can be reached on (571) 272-7602. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Vijay B. Chawan
Primary Examiner
Art Unit 2654

vbc
7/14/05

VIJAY CHAWAN
PRIMARY EXAMINER